

# Managerial Process for National Health Development

*Guiding Principles*



WORLD HEALTH ORGANIZATION

GENEVA

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# **Managerial Process for National Health Development**

*Guiding Principles for Use  
in Support of Strategies for  
Health for All by the Year 2000*

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**WORLD HEALTH ORGANIZATION  
GENEVA**

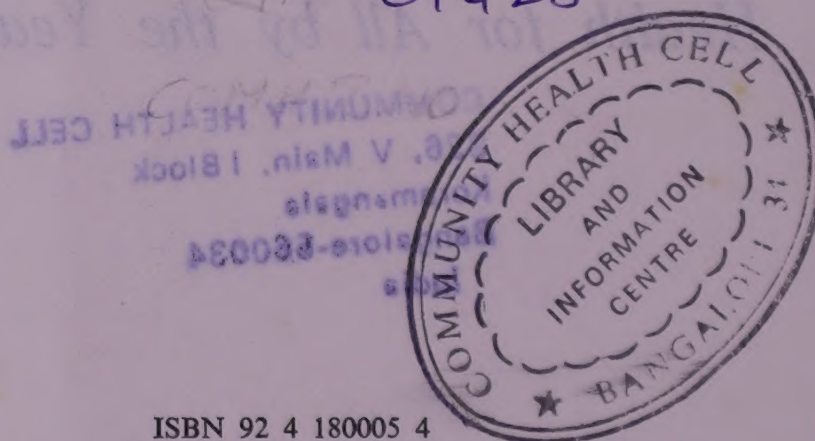
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## **Executive Summary**

The Member States of WHO are engaged in preparing strategies to reach the goal of "the attainment by all the citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life", a goal that is popularly known as "health for all by the year 2000".

The International Conference on Primary Health Care, held in Alma-Ata in 1978, declared that primary health care, as the main focus of a country's health system and an integral part of its social and economic development, is the key to reaching this goal. Yet, even if the broad goal and the key to reaching it have been identified, a managerial process has to be applied by each country in order to formulate and implement the strategy for reaching the goal in a manner that is consonant with the country's own health situation and resources, social and economic conditions, and political and administrative mechanisms. In recent years the importance of decentralizing the managerial process and involving communities in taking decisions concerning their own health care has come to the fore.

Most countries already have some form of managerial process for national health development. Despite wide variations from country to country, it is possible to identify certain common components. These are:

- (a) *The formulation of national health policies*, comprising goals, priorities, and main directions towards priority goals, that are suited to the social needs and economic conditions of the country and form part of national social and economic development policies.
- (b) *Broad programming*—the translation of these policies, through various stages of planning, into strategies to achieve

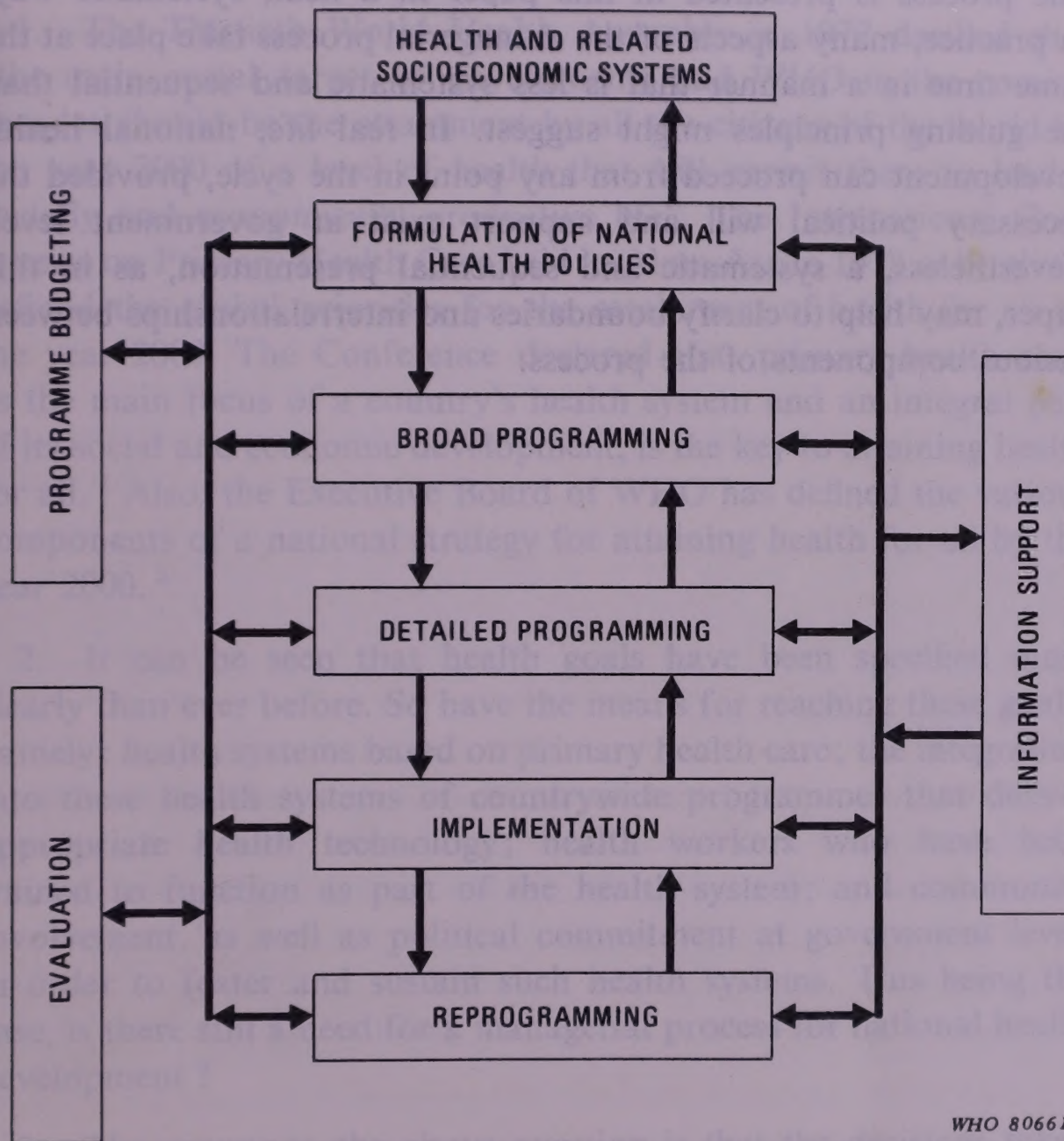
clearly stated objectives and, wherever possible, specific targets.

- (c) *Programme budgeting*—the preferential allocation of health resources for the implementation of these strategies.
- (d) The *master plan of action* resulting from broad programming and programme budgeting and indicating the strategies to be followed and the main lines of action to be taken in the health and other sectors to implement these strategies.
- (e) *Detailed programming*—the conversion of strategies and plans of action into detailed programmes that specify objectives and targets, and the technology, manpower, infrastructure, financial resources, and time required for their implementation through a unified health system.
- (f) *Implementation*—the translation of detailed programmes into action so that they come into operation as integral parts of the health system; the day-to-day management of programmes and the services and institutions for delivering them, and the continuing follow-up of activities to ensure that they are proceeding as planned and are on schedule.
- (g) *Evaluation* of developmental health strategies and operational programmes for their implementation, in order progressively to improve their effectiveness and impact and increase their efficiency.
- (h) *Reprogramming*, as necessary, with a view to improving the master plan of action or some of its components, or preparing new ones as required, as part of a continuous managerial process for national health development.
- (i) Support, in the form of relevant and sensitive *information*, for all these components at all stages.

This paper outlines a total managerial process for national health development, describing the above components and their interrelationships (see Fig. 1), as well as the mechanisms required in order to provide continuity in the process.

FIG. 1

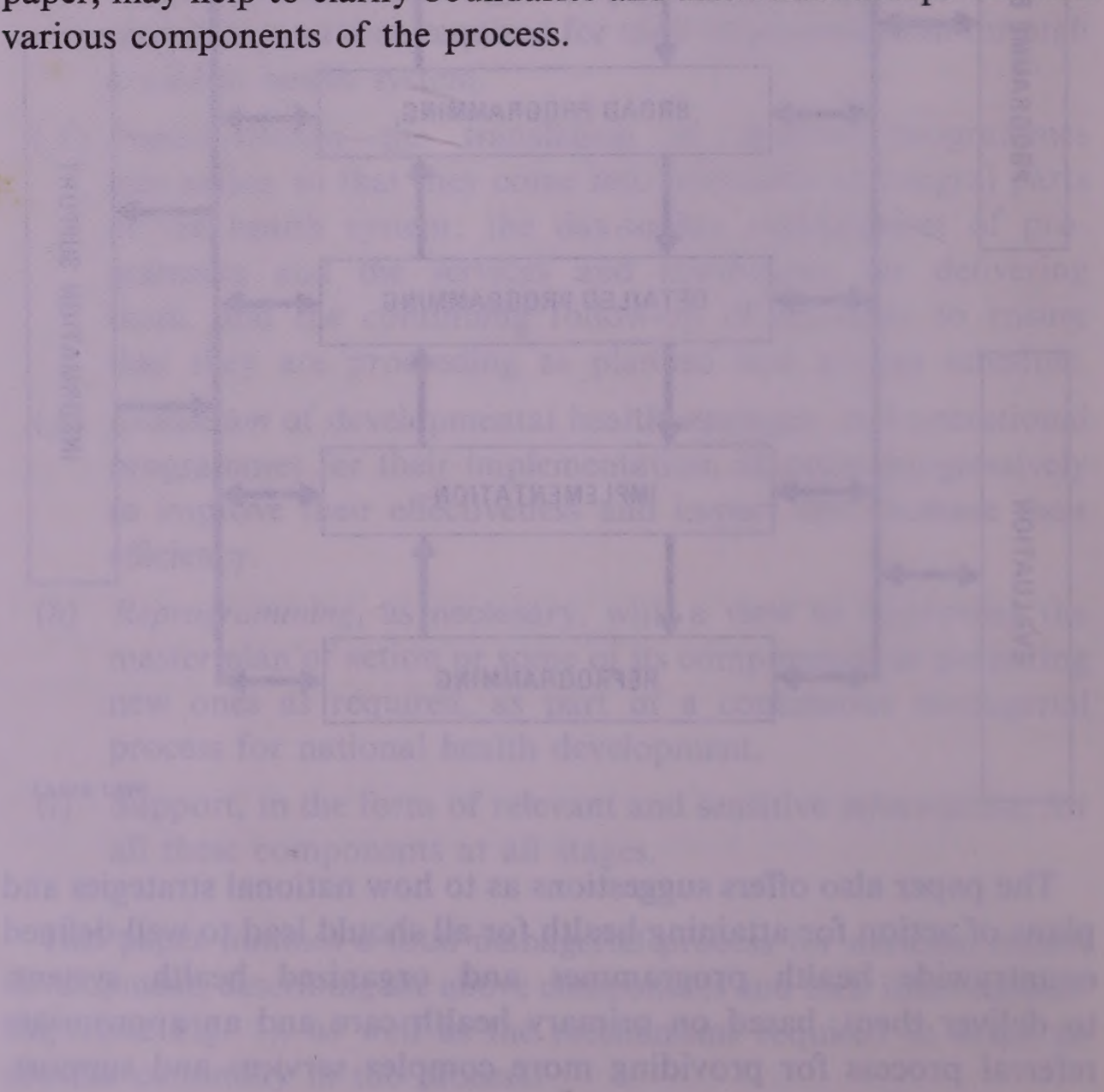
MANAGERIAL PROCESS FOR NATIONAL HEALTH DEVELOPMENT



WHO 80661

The paper also offers suggestions as to how national strategies and plans of action for attaining health for all should lead to well-defined countrywide health programmes and organized health systems to deliver them, based on primary health care and an appropriate referral process for providing more complex services and support.

The principles presented in this paper are intended to form the basis for more specific national guidelines to be developed by countries themselves. Each country will, no doubt, have to apply these principles in a flexible manner in keeping with its own particular circumstances. The process is presented in this paper in a neat, systematic way. In practice, many aspects of the managerial process take place at the same time in a manner that is less systematic and sequential than the guiding principles might suggest. In real life, national health development can proceed from any point in the cycle, provided the necessary political will and support exist at government level. Nevertheless, a systematic and sequential presentation, as in this paper, may help to clarify boundaries and interrelationships between various components of the process.



## **1. Introduction**

1. The Thirtieth World Health Assembly in 1977 decided that “the main social target of governments and WHO in the coming decades should be the attainment by all the citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life”. The International Conference on Primary Health Care held in Alma-Ata in 1978 collectively defined the global priorities for the attainment of health for all by the year 2000. The Conference declared that primary health care, as the main focus of a country’s health system and an integral part of its social and economic development, is the key to attaining health for all.<sup>1</sup> Also, the Executive Board of WHO has defined the various components of a national strategy for attaining health for all by the year 2000.<sup>2</sup>

2. It can be seen that health goals have been specified more clearly than ever before. So have the means for reaching these goals, namely: health systems based on primary health care; the integration into these health systems of countrywide programmes that deliver appropriate health technology; health workers who have been trained to function as part of the health system; and community involvement, as well as political commitment at government level, in order to foster and sustain such health systems. This being the case, is there still a need for a managerial process for national health development ?

The need for  
a managerial  
process

3. The answer to the above question is that the decisions taken and the statements made by the Alma-Ata Conference, the Executive

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<sup>1</sup> *Alma-Ata 1978. Primary health care*, Geneva, World Health Organization, 1978 (“Health for All” Series, No. 1).

<sup>2</sup> *Formulating strategies for health for all by the year 2000*, Geneva, World Health Organization, 1979 (“Health for All” Series, No. 2).

Board of WHO, and the World Health Assembly are very general and need to be made more specific by each country. Thus, each country has to specify its own priorities within the framework of general priorities for attaining health for all by the year 2000. It also has to specify the activities that are appropriate to it with respect to the various components included in the model of a national strategy proposed by the Executive Board of WHO. An appropriate national managerial process is, therefore, required to formulate strategies and plans of action for attaining health for all, to convert these into programmes, to strengthen the health system in order to deliver the programmes in the best way possible, and to monitor and evaluate its own performance and that of each of its component parts, as part of a continuing cycle.

4. Most countries already have some form of managerial process for national health development; even if such processes differ widely in nature, certain common components can be identified. These are described in this paper in a systematic and integrated manner.<sup>1</sup> It is intended to provide at a later stage more detailed guiding principles for each of the component parts, as well as learning material to illustrate certain issues.

The managerial  
process

5. The managerial process presented is much more than a methodology: it is a systematic, continuous process of national planning and programming. It includes policy formulation and the definition of priorities. It involves the preparation of programmes to give effect to these priorities, the preferential allocation of budgets to them, and the integration of the different programmes within

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<sup>1</sup> In 1978 the Thirty-first World Health Assembly urged Member States "to introduce or strengthen, as applicable and as appropriate to their social and economic conditions, an integrated process for defining health policies; formulating priority programmes to translate those policies into action; ensuring the preferential appropriation of funds from the health budget to those priority programmes; delivering those programmes through the general health system; monitoring, controlling and evaluating health programmes and the services and institutions that deliver them; and providing adequate information support to the process as a whole and to each of its component parts" (resolution WHA31.43).

the overall health system. It also deals with the implementation of strategies and plans of action, and the programmes and services and institutions for delivering them, as well as with their monitoring and evaluation with a view to modifying existing plans or preparing new ones as required, as part of a continuous cycle. Finally, it outlines the information support required throughout.

6. A practical health planning process which has demonstrated its usefulness in many countries in recent years is known as country health programming. This mainly comprises the activities required to define health strategies and ensure the appropriation of adequate funds for them—"broad programming" and "programme budgeting"—and to formulate detailed programmes accordingly. Country health programming thus forms an integral part of the broader managerial process for national health development presented in this paper.

7. The health planning process, and the formulation of programmes to give effect to plans, have developed a mystique of their own. There is a need to demystify and simplify the process in the same way as there is a need to demystify and simplify other health technologies. This document aims at doing so, as far as possible in non-technical terms, for health policy-makers and managers. But no matter how one attempts to simplify the process, health planning and programming remain complex matters.

8. The principles presented in this paper are intended to form the basis for more specific guidelines to be developed by countries themselves. Each country will no doubt have to apply these principles in a flexible manner in keeping with its own particular circumstances. The process is presented in a neat, systematic manner. In practice, such sequential phasing and subsequent replanning and reprogramming in an orderly cycle will rarely be as neat and systematic as the presentation of the guiding principles might suggest. Many aspects of the managerial process take place at the same time; for example, detailed programming of some programmes may be carried out while the master plan of action is still under consideration, or the activation

of some programmes and the development of institutions may precede the formulation of certain other programmes. Nevertheless, presentation of the process in a logical sequence is useful in that it clarifies the boundaries and interrelationships between the various components of the process. In real life national health development can proceed from any point in the cycle, provided the necessary political will and support exist at government level. Although decisions are often taken without regard to managerial logic, it nevertheless helps if this logic is available.

9. Also, while developmental planning activities are taking place, operational activities in the health system have to be improved. In addition, in view of the multisectoral nature of health development based on primary health care, the managerial process for health development has to involve various sectors other than the health sector as necessary.

## Terminology

10. Since various terms with similar or somewhat different meanings have been used in various national, regional or global contexts to denote "planning" and "management" of the national health development process, it is necessary to clarify the meaning of these terms.

11. The term "country health programming" has been defined by the Executive Board of WHO as:

a systematic, continuous national planning and programming process. It includes policy formulation and the definition of priorities. It involves the preparation of programmes to give effect to these priorities, the preferential allocation of budgets to them, and the integration of different programmes within the overall health system. It also deals with the monitoring and evaluation of strategies and plans of action, as well as programmes and the services and institutions for delivering them, with a view to modifying existing plans or preparing new ones as required, as part of a continuous cycle.<sup>1</sup>

12. In some countries and regions the terms "national health planning" or "national health planning and management" have

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<sup>1</sup> *Formulating strategies for health for all by the year 2000*, Geneva, World Health Organization, 1979 ("Health for All" Series, No. 2), pp. 21-22.

been used to describe the activities of planning, programming and implementation, together with the evaluation and information support provided throughout the process. In others, this has been referred to as the "national health programming process". This paper uses the term employed by the World Health Assembly in 1978 in resolution WHA31.43, which called for the integration of various managerial components into a unified process under the title "managerial process for national health development".

## **2. Mechanisms for Ensuring Continuity in the Managerial Process**

Ministries  
of health

13. Continuity is essential to the managerial process for national health development. In order to ensure it, ministries of health may need to establish or strengthen mechanisms to provide political and technical support, as well as effective coordination within the health sector, with other sectors, and with communities. Ministries of health usually have the main responsibility for defining national health policies, formulating health programmes, and designing, operating, and controlling health systems. To be as effective as possible, ministries of health should form an integral part of the policy-making mechanism concerned with socioeconomic development at the highest government level; at the same time they should maintain close contact with other ministries and government authorities dealing with socioeconomic development.

National health  
councils

14. National health development is influenced by various social, political, economic, cultural, demographic, and other factors; this means that, for the development and control of national health policies, strategies, and plans of action, it may be useful to establish or strengthen multisectoral national health councils or similar bodies. In these councils or similar bodies the whole range of policy issues affecting health and socioeconomic development could be explored jointly by representatives of the health and other relevant sectors to ensure that health systems are developed as an integral part of overall social and economic development. The ministry of health and its infrastructure at different echelons should be prepared to provide technical support to such councils or bodies, both at the national level and at provincial or district levels. These councils or bodies would normally be of an advisory nature and would be accountable in some countries to the ministry of health and in others to the highest executive or legislative authorities. The composition of a multisectoral national health council or similar body will vary from

country to country but may include individuals representing a wide range of interests in the fields of health, politics, economic affairs and social affairs, both governmental and nongovernmental. Participation of the population and its organized bodies in such councils or bodies could also be highly useful.

15. To provide technical support to ministries of health and health councils as well as necessary linkages between the technical and policy levels, national centres for health development or similar bodies are currently being advocated. These centres or bodies are seen as networks of existing institutions, departments, schools, or organizations in the country. They would deal with the development and application of the country's managerial process for formulating national policies, strategies, and plans of action for health for all, management aspects of the development of primary health care and its supporting levels, and the related health services research. These centres or bodies could also serve in an advisory, training, and information-exchange capacity, with the aim of building up a sufficient number of people skilled in the entire managerial process for health development. Likewise, the centres or bodies could interact with similar institutions outside the usual boundaries of the health administration, thus helping to ensure multisectoral participation in the application of the managerial process for health development.

National centres  
for health  
development

16. A usual starting-point for the application of the managerial process would be a government decision to assign a core group or committee, preferably of an intersectoral nature, to the task of formulating national strategies and plans of action for the attainment of health for all by the year 2000. There are many different ways in which this group or committee could operate; its work will be most effective if it is linked to political decision-making bodies in the government, for instance, at the ministry of health level, or to a policy advisory body such as a multisectoral national health council or similar body. The committee should, thus, have permanent working relationships with:

Intersectoral  
core groups

- (a) the *decision-makers*, including high-level officials of the ministry of health and other ministries concerned with the social and economic sectors;
- (b) multisectoral *national health councils*, or similar bodies, where they exist;
- (c) *representatives of communities, professional interest groups, and agencies* interested in health and socioeconomic development; and
- (d) *health workers, teachers, and specialists* with the best available information, knowledge, and experience as regards a wide range of health and social disciplines, including the use of managerial, administrative, and legal expertise, and relevant information sources.

## Decentralization

17. While the approach described above may be appropriate at the beginning of the process when policies are being developed and the strategies and broad master plans of action are being formulated, the work should then preferably continue in a decentralized fashion at provincial and local levels depending on the size and administrative set-up of the country. For example, detailed programme formulation might take place at the provincial or local level once the government has accepted the master plan of action, a programme manager being selected for each large programme, and a coordinating authority established at provincial or local levels. In smaller countries such a distribution of responsibilities could be established at the national level. Whatever the distribution of responsibilities, the core group or committee referred to above would have to retain its overall coordinating function.

18. A general process of decentralization of administration is occurring in many countries and must be accommodated within the managerial process. The current trend is to strengthen decision-making powers at provincial, district, and community levels. Parallel with this, appropriate community organization is needed for communities to become full partners in the health development process. At the same time, the machinery of government must continue to

devise and fund country-wide programmes and ensure that they are properly formulated and carried out. Sometimes a five-year plan is developed entirely at the central level, whereas the next one is planned from the more peripheral echelons inwards. Normally, basic policies, priority programmes, and strategies are decided upon centrally, ideally following adequate consultation with the periphery. Other levels then have to adapt the national programmes to their local situations by means of detailed formulation. All phases of the managerial process will ultimately have to be tailored for use at the community level. A complete range of mechanisms for involving the community in health management has yet to be developed in most countries.

### **3. Formulation of National Health Policies**

19. Health policy formulation and analysis have received insufficient attention. Many difficulties have been encountered in the past in defining countrywide health programmes in terms of their national priority, and these difficulties have often arisen as late as during programming and implementation. This serves to emphasize the need to establish firm links between governmental programme management levels and the national policy-making levels. Policy formulation is an ongoing government activity. Policies, formal as well as unwritten, emerge continuously from governmental processes. The problem is to ensure that planning, programming, and implementation serve the national policies as pronounced by the highest authorities in the country.

#### **Definition**

20. This notion is of utmost importance in the process of formulating and implementing strategies for health for all by the year 2000. As stated by the Executive Board of WHO:

National policies, strategies and plans of action form a continuum, and there are no sharp dividing lines between them...

A national health policy is an expression of goals for improving the health situation, the priorities among those goals, and the main directions for attaining them. A national strategy, which should be based on the national health policy, includes the broad lines of action required in all sectors involved to give effect to that policy. A national plan of action is a broad intersectoral master plan for attaining the national health goals through implementation of this strategy. It indicates what has to be done, who has to do it, during what time frame and with what resources. It is a framework leading to more detailed programming, budgeting, implementation and evaluation.<sup>1</sup>

#### **Entry point**

21. Countries seldom follow strictly the order of first completing the definition of policies, then continuing with the formulation of

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<sup>1</sup> *Formulating strategies for health for all by the year 2000*, Geneva, World Health Organization, 1979 ("Health for All" Series, No. 2), p. 14.

strategies and only afterwards devising plans of action, since, as mentioned above, these form a continuum. The entry point selected will depend on the stage of development of the country's health system and main priorities. Whatever entry point a government selects, current government policies have to be reviewed critically and reformulated as necessary in the light of the concepts and principles of primary health care defined in the Declaration of Alma-Ata. Each country will have its own priorities, and the concept of primary health care will have to be interpreted in accordance with each country's specific circumstances and expectations. The planning, organization, and operation of primary health care invariably constitute a long-term process and total coverage of the population may have to be achieved in stages.

22. The following are examples of issues for which broad goals and targets should be considered when national health policies are being reviewed: Broad goals and targets

- geographical coverage of the population with at least all the essential components of primary health care and the corresponding referral system <sup>1</sup>
- a system of financing health care ensuring that all strata of society have an equal opportunity to avail themselves of such care
- coverage of particular population groups, such as mothers and children, working women, schoolchildren, workers, and the elderly, and any particular risk group
- preferential allocation of health resources to underprivileged population groups

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<sup>1</sup> The essential components of primary health care are: "education concerning prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs". *Alma-Ata 1978. Primary health care*, Geneva, World Health Organization, 1978 ("Health for All" Series, No. 1), p. 4.

- improvement of the human environment by progressively providing safe drinking-water to the whole population, building up waste disposal systems, and ensuring clean air
- improvement of housing and basic sanitation
- securing adequate food production and supply and proper nutrition
- development of human and financial resources for health
- community mobilization in planning and development, including promotion of collective responsibility for the health and health care of the community and its constituent families and individuals
- relevant health technologies.

#### Legislation

23. In some instances the preparation and implementation of national health strategies will require changes in the laws of a country. For example, existing licensing regulations may prevent paramedical personnel from carrying out some medical procedures. In other cases drug distribution activities may require legislative changes.

#### Policy issues

24. All policy issues might not have been fully clarified before the initiation of broad programming. However, during broad programming, when countrywide programmes are defined in terms of their priorities, policy-makers have continuously to consult technical staff, thus gradually making health policies more explicit and placing the master plan of action within the context of the country's overall development policies.

## 4. Broad Programming

25. The formulation of health strategies to give effect to policies for health for all requires decisions on specific priorities, objectives in relation to these priorities, and the resources needed to attain these objectives. To reach these decisions, a careful analysis of the country's health problems and socioeconomic circumstances is required with a view to arriving at solutions that are socially and economically feasible. These solutions can be summed up as the selection and subsequent formulation of health programmes that use appropriate technology and, to deliver these programmes in an integrated manner, the parallel design or redesign, as necessary, of the health system infrastructure, based on primary health care. It is useful, at this stage, to recall the following working descriptions of a health programme and a health system.<sup>1</sup>

General  
principles  
of broad  
programming

26. A health programme is a series of interrelated actions aimed at attaining a defined objective such as the improvement of child health or the provision of safe drinking-water. Each countrywide programme should include specific objectives and related targets, quantified, if possible, as well as the manpower, technology, physical facilities, equipment and supplies required, means of evaluation, and financial estimates, a calendar of action, and ways of ensuring appropriate correlation among all the above.

Health  
programme

27. A health system is composed of various levels, the first level being the first point of contact between the system and the people, where primary health care is delivered. The other—intermediate and central—levels of the system provide support and specialized services, becoming more complex as they become more central. The design of a health system of which primary health care is the central

Health  
system

<sup>1</sup> *Formulating strategies for health for all by the year 2000*, Geneva, World Health Organization, 1979 ("Health for All" Series, No. 2), pp. 20-21.

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function and main delivery agent involves identifying those components of the health sector and other interacting sectors required to deliver health programmes at the various operational levels. The activities to be carried out by each of these components are then defined. The services and institutions required at different levels to perform these activities are specified. The necessary interaction between services, institutions, and people at each of these levels is also indicated.

Support for  
primary health  
care

28. In formulating the strategy, full account has, therefore, to be taken of the support of primary health care by the entire health system and by the other social and economic sectors concerned. These might include education, agriculture, animal husbandry, food, water resources, environmental protection, housing, industry, public works and communications. The mobilization of the community and its involvement in taking decisions and in implementing health programmes are also vital parts of the national strategy. Parallel with activities during broad programming for the establishment of new parts of the health system, activities with respect to existing parts of the health system are necessary to make them more relevant to and supportive of primary health care. For, once defined, a countrywide programme has to be delivered by the relevant components of the health system at all levels, with appropriate support from other sectors.

29. To ensure an adequate two-way support and referral process, a system needs to be developed that links the various institutions involved, starting from individuals and the simplest of health institutions in small communities and continuing through increasingly complex institutions along the health system chain. Mechanisms have to be considered for ensuring the availability to primary health care workers and to communities of guidance on health problems, and the process of referring patients to specialized types of health institutions, whenever necessary, has to be reinforced. Also required are the development of logistic support to ensure supplies and the provision of supportive guidance and supervision. Particular attention should be paid to institutions providing direct support for primary

health care. The functions, staffing, planning, design, equipment, organization and management of health centres and district hospitals will, therefore, need to be reviewed in the light of their wider function in support of primary health care.

30. Manpower considerations are among the most important elements in the planning of a health development strategy. During broad programming, manpower planning needs to be considered in relation to the development and implementation of feasible priority programmes. Projections of manpower requirements covering the programme period should be made, taking into account both the expected losses of personnel and the expected increases resulting from existing training programmes. Decisions have to be taken with respect to staff recruitment, training, salaries, housing and career development, taking full account of the need to prevent a "brain drain".

Manpower planning

31. National health research capabilities may need to be strengthened or reoriented towards problems relating to the formulation and implementation of policies, strategies, and plans of action. This reorientation might include the promotion of intersectoral research, for which relationships would have to be established with the institutions concerned in other sectors. Biomedical research may be required to elucidate outstanding health problems and to develop new or better ways of dealing with them. Health services research may be required at various stages of the managerial process to ensure the efficient and effective delivery of health programmes and the development and application of appropriate technology. Broad programming thus includes ensuring that countrywide programmes embody any related research required. Governments may find it necessary to create special mechanisms to coordinate research activities, such as the national health research councils that exist in some countries.

National health research capabilities

32. In the course of devising strategies, formulating countrywide programmes, and designing services for delivering them, it may be useful to review existing technologies for each of the priority pro-

Appropriate technology

grammes, to identify those that are appropriate, and to indicate and promote the type of research required to develop alternative technologies. It might also be appropriate at this stage to think of enlisting the participation of the various government departments concerned—research and academic institutions, industries, and nongovernmental organizations—in the health and associated sectors. In selecting technology it has to be remembered that, while it is sometimes possible to substitute expensive capital equipment for labour, more often such equipment requires more highly skilled operational and maintenance manpower than is readily available. Also, the equipment or vehicles used in an urban area where there is a trained industrial labour force may be inappropriate in rural areas. Technology for water supply, drainage, and waste disposal must be appropriate not only in terms of costs and human resources, but also in terms of local patterns of behaviour. There have been many examples of sanitation systems which were underutilized either because they did not fit in with the local culture or because of inability to undertake maintenance and repair. Proper involvement of the community is essential in assessing the appropriateness of technology. Moreover, activities should be identified that can be carried out by people in their homes and by the community, as well as by the health services.

**The process  
of broad  
programming**

33. Broad programming starts with a situation analysis. This involves assessing the epidemiological situation in the country, identifying its main public health problems, and summarizing information on health services, institutions, and resources. Such an analysis should not, however, be restricted to the present situation; it should also include forecasts for the future.

34. The review and analysis of information on health problems and current service coverage and effectiveness should help to determine the priority health or health-related problems and the population groups deserving priority attention. As far as possible with the existing data, problems should be defined in quantified terms, including trends and projections. It then becomes important to establish objectives and targets at which future health development

strategies will aim. The choice of these strategies involves determining the feasibility of alternative courses of action.

35. For example, excessive numbers of children of low birth weight and high neonatal mortality from tetanus in a particular province might be identified as constituting a priority concern. Once the priority objectives or specific targets for reducing the incidence of these conditions have been set, strategies for achieving them can be identified. For the problem of tetanus an effective technology is available in the form of tetanus toxoid inoculations for women, so that the strategy will ensure that this is provided for all women; for example, by enabling all midwives to give the inoculations, and training them in sterile delivery practices. The etiology of low birth weight is, by comparison, much less clear-cut, but certainly includes such underlying factors as maternal malnutrition, too heavy a workload, and cigarette smoking. So the selected strategy will involve several different interventions pursued at the same time. These might include employment programmes to raise cash incomes and thereby facilitate the improvement of maternal nutrition, the provision of food supplements for pregnant women, social support to lessen the woman's workload in and away from the home, and prenatal examinations to identify high-risk mothers in need of special care. It is important in considering possible strategies to encourage innovations and include possible actions in sectors other than health. These approaches or strategies need to be screened for feasibility. The constraints might include cultural and behavioural considerations, political and professional opposition, difficulty in obtaining or placing workers of particular levels of skill, complexity of administration and logistics, or the community's lack of financial or productive resources. Elucidation of these constraints may be of help in determining the means of overcoming them, or in selecting the strategies most likely to succeed.

Strategies

36. An example of one such constraint is the difficulty of changing dietary habits. Various types of health education approaches are usually suggested, including lectures and demonstrations by basic

health service staff. In most developing countries, however, good nutrition is prevented not only by the lack of education but also by poverty. Very often nutritious food is available but is sold rather than eaten. When people are advised to produce food from their own gardens, they decide that it is not worth the time, effort, and loss of income. The government may therefore wish to consider alternative strategies, such as subsidizing combined community agriculture and food production projects.

Specific  
activities

37. When the broad lines of action have been selected, the specific activities needed and their coverage, targets, and timing will have to be considered so that the resources required can be estimated.

38. Critical activities in each component of the strategy should be described, in particular the interventions recommended for dealing with the priority health or health-related problems. These interventions may be preventive, diagnostic, curative, or rehabilitative, and may comprise educational, informational, and social procedures. For example, a government may decide to introduce a child allowance so as to help families to provide their children with proper food and clothing, as a means of preventing illness and reducing infant and child mortality and malnutrition. The interventions should relate to the most common aspect of the problem rather than to unusual variations of it. It is essential to specify the population coverage and rough requirements in manpower, facilities, equipment, and supplies for each programme; for example, how many community health workers, midwives, nurses or doctors will be required, and how many health centres or hospitals, with what resources, need to be constructed. Estimates of one-time and annual operating costs can then be made using approximate average costs such as salary per community health worker or nurse, dollars per square metre of building, training cost per midwife, drug cost per outpatient visit, and food supplement cost per child.

Resource  
constraints

39. Broad programming is also concerned with estimating the consequences of the programme in terms of population coverage,

possible reduction in the incidence of disease and/or disability in the population, and cost. As there are manpower and financial constraints at each phase of the plan, alternative lines of action and mixes of interventions and time patterns of implementation may need to be considered to make reasonably certain of achieving the maximum effect. For example, it may be necessary to set up a mobile health team for undertaking disease control activities until fixed facilities are constructed and staff and logistic systems are built up in the communities and areas to be served.

40. Resource constraints may imply that a particular set of interventions could reach only a limited portion of the population.<sup>1</sup> Further analysis, involving the consideration of alternative types of intervention or changes in the allocation of resources among activities, may make it possible for more of the population to be covered, but perhaps with less effect on each person, group, or region reached. For example, a particular activity might be so expensive that its potentially powerful health effects would be limited to, say, 20% of communities. If the same resources were allocated to another activity, 90% might be covered. Or, perhaps with the same resources, 10 village health workers per community could be trained to a particular level of skill or 50 workers to a much lower level. The more highly trained workers might have greater health impact per contact, but fewer people might have access to them than would have access to a greater number of lesser-trained health workers.

41. While it is important to recognize that national budgetary resources are always limited, documented proposals have to be presented for the proportion to be allocated to health objectives. Part of the problem is to demonstrate to those in the ministry of finance and development planning body both that the proposals are efficient and that additional resources can be utilized effectively to make significant additional or earlier progress in extending primary health care coverage or raising the health status of the population.

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<sup>1</sup> For more detailed information, see Part 5 (Programme Budgeting).

Programme  
planning and  
development

42. Once the more cost-effective and feasible strategies are identified, it becomes necessary to determine how best to organize their setting-in-motion and subsequent operation. Some existing health programmes and services may already be carrying out important interventions, although on a smaller scale than required. Many existing programmes will probably retain their current responsibilities, while modifying their staff functions, activities, and scale of operations according to the proposed strategies. Other programmes may undergo organizational revision in order to increase coverage and efficiency. Integration of various kinds of services and programmes at the peripheral level, where primary health care is delivered, is a common requirement for programme modification. For example, communicable disease control has often been carried out in a series of distinct campaigns, and careful thought has to be given as to how best to integrate them within primary health care, progressively if necessary. Primary health care and the communities it serves have to be adequately organized to assume the enlarged responsibilities involved. On the other hand, if too many tasks and responsibilities are assigned to primary health care workers all at once, some planned activities may be incompletely carried out.

43. Other aspects of the identification, revision, or formulation of priority programmes are political, organizational, or personal in nature. Organizational and professional prestige is involved. Reorganization and reorientation of programmes can affect the status of organizations and individuals. They therefore have to be planned carefully in order to mobilize professional and organizational capacities in support of the strategies concerned, while minimizing disruption of ongoing programmes and mitigating the unsettling effects of change on programme staff. A tall order, but important!

## **5. Programme Budgeting**

44. For any strategy to be viable, it is essential to make resources available for priority activities where and when they are needed. The process for doing so is called programme budgeting, i.e., making sure that budgets are available to attain programme objectives. Without this, plans are merely dreams on paper. Budgeting is a means of ensuring that programme decisions become budget decisions.

45. Programme budgeting has to begin during policy formulation and particularly during broad programming, once priorities are known. These priorities will have to compete for resources not only among themselves, but also with the existing programmes and institutions in the health system, as well as with other sectors. This being the case, to start off it is useful to ensure at least that additional resources are allocated to defined priorities, since it is rarely possible to reduce resources available for ongoing activities in the health services. In this way, for example, all additional resources can be allocated to primary health care rather than to "vertical programmes" and urban hospitals, until primary health care catches up with the rest of the health system. During this early phase it is sufficient to make broad allocations expressed as orders of magnitude. These are placed in the formal annual development and operating budget and are further refined during detailed programme formulation.

46. Programme budgeting makes for better decision-making and implementation by defining objectives clearly and by grouping together the resources required to attain each of these objectives. Prior to making decisions, the analysis of available information on the present use of resources in relation to stated objectives, on ways in which objectives are being met, and on population groups which are being served is required.

Allocation  
of resources

47. Broad programming will have tackled a variety of questions such as: How should resources for primary health care be allocated between its various components? How much emphasis should be given to nutrition as compared with sanitation? How should maternal and child health activities be distributed among rural and urban localities? What emphasis should be given to, say, training, as compared with service delivery? A programme budget can effectively display the results of the choices made among these kinds of alternatives. It is a means of noting, in an organized fashion, what is to be done, with emphasis on the resources required to get it done.

48. Programme budgets have to be arrived at through the budgetary process practised in the country concerned. Whatever the process, it will have to include determining sources of funds, e.g., governmental development budget, recurrent budget, health insurance funds, and user charges. It will also have to include specifying the units in the ministry of health, other ministries, provincial governments, institutions, and communities that will receive funds to spend on programme planning and implementation.

49. For example, consider the functions and responsibilities involved in running a national immunization programme. The tasks relevant to such a programme may be grouped into four subsystems, each requiring individuals with different skills. The subsystems differ in the degree to which they support health interventions, and the individuals will differ in the proportion of their time devoted to the immunization programme, depending on the subsystems in which they work and whether they are employed at peripheral, middle, or national level. A programme budget in a ministry of health for such a programme might appear as follows:

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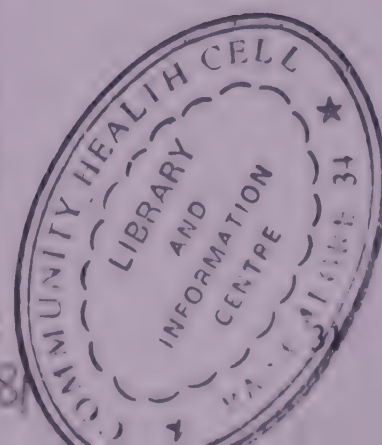
*Managerial process for national health development*

Subsystem	Tasks	Budget (\$000s)
Laboratory	Provide quality control to assure vaccines conform to WHO requirements. Produce vaccine where appropriate. Test samples from the field for potency, etc.	
Logistics	Procure, store, and distribute vaccines and related material so that users are not forced to interrupt the provision of service because of shortages.	
Service delivery	Provide immunization for a high proportion of all infants and pregnant women in a defined geographical area, making sure that high coverage is in fact achieved.	
Management	Plan and coordinate the national effort and secure the necessary resources; ensure that staff operating within all subsystems are given training and supervision. Evaluate results, including immunization coverage. Promote research and development to improve impact of programming.	
Total		

50. Consider another example based on intersectoral interventions. Suppose that the achievement of nutritional goals could be aided by feeding children in schools. The tasks involved are shared by various agencies. The ministry of agriculture may have to secure some of the food; the ministry of health may have to specify the nutritional requirements and the diets; the ministry of education may have to make administrative arrangements and arrange for the transportation and distribution of supplies; the local community may have to provide additional food and labour for its preparation; and voluntary agencies may also have to supply some food items.

51. Thus, a subset of the major food and nutrition programme is identified, the various participant organizations specified, and their financial requirements calculated. The national "programme budget" for each year might look something like the following:

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Item	1980 (figures in \$000s)			
	Training	Procurement	Direct services	Total
Food and nutrition School feeding: ministry of agriculture ministry of health ministry of education community participation voluntary agencies				
Total:				

52. To ensure that the necessary funds for the school feeding programme are available in the budget year, a school feeding allocation would have to be inserted into the appropriate categories in the regular budgets of each of the agencies. If this is done, there is a greater likelihood that managers responsible for the school feeding programme will be able to fund each of the activities required. The specific unit within each of the ministries and the communities concerned would have to be designated in order to identify management responsibilities.

#### Budgetary control

53. Budgetary control needs to be exercised to ensure that spending authority for delivering the programme is clearly allocated in the budget process. Such control also ensures that the programme objectives, activities, and target populations are not lost sight of when funds are allocated to the various spending units concerned. A problem that often arises is that governmental budget categories do not reflect programmes and target groups, but are stated in terms of objects of expenditure, such as pay for personnel. Budgetary control to ensure the preferential allocation of resources to programme priorities may require the introduction of additional categories of expenditure, relating funds to programmes, activities, and population groups.

54. The introduction of specific programme details into the budget calls for the application of cost analysis, so that reasonable estimates of the financial requirements can be made, phased over time, and expressed in budget categories that are specific to the objectives concerned. A good accounting system is of help, but frequently the activities involved in health development are so different from normal accounting categories, or programmes given priority are so different in type from earlier ones, that specially devised methods of cost estimation may have to be used. These methods would translate projected programme activities, such as those for feeding school-children, into specified requirements for people, transport, and supplies. The costs of fulfilling these requirements would then have to be calculated to complete the calculation of programme budget estimates.

Cost analysis

55. Discussions and negotiations with regard to allocations of resources and responsibility for the use of these resources can be aided by the use of a programme-budgeting format as a basis for making and recording decisions. Such a format can facilitate coordination among different managers and the monitoring of the programme as a whole by designated responsible officials. Such monitoring should also provide information for evaluation.

Format

56. Programme budgeting, then, is a process for establishing financial plans to attain objectives. It can be summed up as programming by objectives and budgeting by programmes. It operates at the various levels of government at which major programme allocations may be determined. It also indicates the emphasis that the government wishes to place on activities for health development in each sector. At other management levels, the programme-budgeting process links the activities of agencies involved in health programmes to the programme objectives and the sources of funds. The information gathered from the programme monitoring process can be used in revising requirements when these have to be specified in subsequent annual budgets.

Programming by objectives, budgeting by programmes

## **6. The Master Plan of Action**

### **Preparation of the plan**

57. When broad programming has been completed, including the related programme budgeting outlined above, the master plan of action is prepared in a document summarizing the product of the programming process. It should be presented to the government for acceptance or modification and will then provide long-term guidance and direction for the development of the country's health system. The national plan of action should specify at least the following:

- the national health policies to be followed, the objectives to be attained, and related targets, quantified as far as possible
- the political, social, economic, and administrative processes and the technology required, together with any necessary legislation and managerial mechanisms and processes
- priority health problems, the strategies chosen to solve them, and countrywide programmes that have to be formulated in response to them, together with a timetable for their implementation
- the main agreed actions to be taken by all sectors concerned, including the development of the health services required to deliver programmes
- manpower requirements
- the broad allocation of financial resources for programme implementation, taking into consideration resources actually and potentially available and the progressive increase in resources which will be necessary as the plan evolves
- the organizational responsibilities for programme implementation.

### **Implementation of the plan**

58. The implementation of such a plan of action is obviously a long-term process for which it is difficult to specify a definitive,

precise timetable in advance. However, it is useful to prepare rough timetables and refine them progressively, since implementation will depend on a variety of political, social, human, managerial, technical, and economic circumstances, including the extent to which the required resources can be made available. It is often wise to adopt short-term measures, if the initiation of long-term action would lead to too long a delay, provided that the short-term measures are consistent with the general tenor of the long-term action, and in no way constrain the future implementation of the national plan of action.

59. Master plans of action, approved by governments, should not be interpreted as "sacred" documents that will provide "right" answers for all kinds of situations in the coming decades. The master plan of action should preferably be interpreted in a flexible manner, providing a common platform for action by all levels of the health system, including the support of other sectors. As the master plan of action is progressively implemented, constant interaction will be required between, on the one hand, technical levels involved in the detailed planning, starting-up, and running of programmes, and, on the other hand, government offices and policy levels. This is necessary in order to bring about the necessary modification, further specification, or redesign of the master plan of action.

## 7. Detailed Programming

### **General principles of detailed programming**

60. When the government has approved the master plan of action, the time is ripe to embark on the detailed formulation of the countrywide programmes that have been approved, and on the design of improved health systems to deliver these programmes. While efficient management is futile where programmes are basically unsound, in many countries poor management of existing services is a serious problem, so that even what has been planned on paper does not take place in practice. Proper formulation of programmes, followed by vigorous programme activation, will make it easier later on to operate programmes and the services and institutions for delivering them in an efficient manner.

### **Levels of authority**

61. Detailed programming is a costly affair in itself, and great care has to be taken to organize it properly. It is necessary first of all to decide on the delegation of responsibility and authority for programming to intermediate and local community levels. Decisions of this nature will be affected by such factors as the size, administrative organization, and geography of the country. It is also necessary to define, on the basis of agreed criteria, the size and types of communities that are to receive primary health care, as well as their grouping for purposes of support and referral. Here, attention should be paid to population coverage and the accessibility of health care.

### **The manager**

62. At the appropriate level, a programme manager then has to be assigned and sometimes an additional manager for each large component of the programme, such as the creation of an institution. Ideally the choice of manager should fall on the person who will ultimately operate the programme or direct the institution. Managers rarely come ready-made and may have to be trained for the job.

63. The manager of the programme will have to become acquainted with the programme's objectives and targets. Acquaintance will

also be required with the kind of technology considered appropriate; the types of health and other workers foreseen; the physical facilities considered necessary; categories of equipment and supplies, including vehicles; methods of monitoring and evaluation; time allotted for getting the programme under way; relationships determined between the programme and other programmes; and the way integration of these programmes within the health system has been envisaged.

64. Detailed programming entails thinking about a great many factors relating to resources and their management; people as subjects and objects of health development; health personnel; facilities and their construction, equipment, and maintenance; supplies, and logistics to ensure their timely availability; and communication and transport. In many cases it is only when issues such as these have been examined and planned in detail that their true nature and magnitude emerge and more specific decisions can be taken with respect to them.

Resource management

65. It is, therefore, now necessary to specify the above items in such detail that, when the green light is given, the programme can be implemented. For instance, as far as technology is concerned, it is necessary to decide what can be done by individuals and families, what by the community as a whole, what tasks will have to be performed by health workers engaged in primary health care or by those in the supporting health system, and what activities will have to be carried out by other sectors.

The process of detailed programming

66. Precise manpower estimates have to be arrived at, tasks defined, and orientation and training planned. Ways of selecting personnel have to be agreed upon. Salary structures and work incentives have to be considered. Assumptions with regard to attrition, retirement, illness, and/or career changes, have to be specified. During this period, post specifications have to be made so that personnel can subsequently be assigned to particular posts and locations; these include staff required for training, maintenance, and support, as well as staff for providing services to population groups. Relevant training programmes have to be conceived.

Manpower planning

Physical  
facilities

67. Where physical facilities are required, decisions have to be taken as to whether to buy, rent, or build them. If they have to be built, their location has to be decided upon, and architects' briefs have to be prepared. Decisions on the construction of facilities require most careful consideration in view of the cost and complexity of the task. Many health administrations are moving towards the use of standard designs which have proved advantageous in terms of cost reduction, ease of maintenance and expansion, and suitability within local environmental conditions. Because of inflation, it is particularly important to reduce the requirements for imported materials and equipment and to accomplish planned activities on schedule. Communities themselves may make a valuable contribution by providing materials, labour, and land.

Logistics and  
supplies

68. The type, quantity, and location of supplies required need to be determined, decisions taken regarding their purchase, and a logistic system planned to ensure their availability wherever and whenever they are needed.

69. Supplies include not only equipment and materials for building maintenance and repair but also those consumed in providing services, such as pharmaceuticals and surgical supplies in curative medical care; vaccines, chemical prophylactics, insecticides, and molluscicides in preventive programmes; and food supplements in nutrition programmes. The expected rates of consumption of each type of commodity and the quantity of initial stocks need to be projected and their costs estimated.

70. Manufacturing, importing where essential, transportation, and maintenance of the cold chain for certain items are also critical in ensuring supplies in sufficient quantities and of suitable quality to achieve programme objectives. Centralized procurement, on the one hand, and local procurement, on the other, have to be compared with respect to cost, time, availability, and possible effect on the local and national economy.

Transport

71. If the programme calls for a transport system it should be planned and designed *before* operations commence. Attention

should be given to expected patterns of use, location and equipment, and anticipated replacement.

72. The interrelationships between all the above aspects of the programme have to be specified and a detailed calendar of action worked out. All of this may require health services research, which among other things may help to identify whether the proposed rate of programme implementation is feasible.

Calendar  
of action

73. At the same time, those responsible for the health system as a whole in the geographical area concerned have to define or refine the relationships between the primary health care programmes involved and the next level of the health system, such as the health centre or district hospital. They have to decide how best to integrate programmes into the general health system in the area. They have to ensure proper links in the supply chain, i.e., the logistics of supply. Again, health services research may be required for these purposes. In this context it is of the utmost importance to remember the continuing need to review and redesign or improve, as necessary, the health care system that is in operation, taking into account the modifications required for it to be based on primary health care.

Relationships  
within the  
health system

74. Programme budgeting continues throughout the above phase. Detailed cost estimates have to be made and budgets prepared accordingly. It is useful to have standard costs to start off with, progressively refining cost estimates in the light of the specific circumstances. Budget estimates for both capital investments and current expenditure have to be submitted to the appropriate authorities. In submitting these estimates at local, intermediate, or national levels, the timing of expenditures by budget year needs to be specified. The presentation of objects of expenditure will vary according to the budget classification scheme employed. Usually, manpower requirements by type and cost need to be estimated for all programmes, primary health care facilities, or institutions. Needs in supplies, drugs, equipment, and transportation will likewise have to be identified. In addition, detailed budgets for construction projects have to be estimated by location and administrative unit.

Budget

75. The utilization of internal funds, or external support, for capital investment is often proposed as a top priority. For example, funding may be available for the construction of a large number of health centres. Care must be taken not to exceed the national capacity of staff to operate these centres. Capital investment is a one-time endeavour, but the salaries of the staff and the funds for maintenance, supplies, and drugs continue every year and often increase with inflation. Also, equipment has to be renewed from time to time. People have to be trained and assembled in time to operate new institutions as soon as they are ready. Operating costs must, therefore, always be considered when the scale of capital investment is being set.

Programme  
document

76. Detailed programme formulation generates the working document for individual programmes, providing essential indications for setting these programmes in action and later operating them. This document should include, for each programme: details of objectives; targets; populations and localities; legislative and administrative requirements; activities; timetable for implementation; budgets; requirements for personnel, including their recruitment, training and management; supplies, equipment, and logistics; construction; transport; evaluation and information support; and practical intersectoral implications.

Primary  
health care  
in communities

77. Ways of planning and organizing primary health care in communities are of particular importance.<sup>1</sup> These will vary with the type and size of community and with its pattern of social organization. Thus, solutions applicable to small villages may be vastly different from those appropriate for large urban communities. Nevertheless, certain features have to be taken into account that are common to all forms of community.

78. It is necessary to decide on the most suitable mechanisms for planning, operating, and controlling the community primary

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<sup>1</sup> Paragraphs 77 to 84 have been taken from: *Alma-Ata 1978. Primary health care*, Geneva, World Health Organization, 1978 ("Health for All" Series, No. 1), pp. 56-58.

health care programme. Local political, administrative, and social patterns will help to determine these mechanisms. In all cases, it is necessary to reach agreement on responsibilities—for example, to decide who carries ultimate responsibility for the programme and whether the same individual, or committee as the case may be, is also responsible for its detailed planning and management. If a committee is elected, how should it be composed—of political or other community leaders, health workers, or representatives of the public, and in what proportions? Will such a committee be given absolute powers, or will it be empowered only to make proposals, and if so to whom or to which body representing the community as a whole? How will coordination with other sectors best be ensured—by including their representatives in the mechanism for planning and organizing primary health care, or by creating another community group consisting of representatives of all the sectors involved in development?

79. In determining priorities, what are the best ways of ensuring that the voice of the whole community is heard? And once priorities have been determined, are they to be given effect all at once or in stages? The answer to this last question will, of course, depend on the resources available; decisions have to be taken concerning the generation of local resources in cash and kind, and assessments made of the resources potentially available from the other levels of the health system and from central government. It is also necessary to decide who will deal with the other levels of the health system—for example, health workers at the technical level, or community leaders at the political level, or both.

Priorities

80. Once priorities are decided on, decisions have to be taken concerning the methods and techniques to be employed. These have to be acceptable both to those who use them and to those on whom they are used. Also, an appropriate mechanism is required for taking these decisions, preferably including participants from the general public and from the health sector. Further decisions have to be taken on the composition and degree of skill of the health team providing

Methods

primary health care. Should this be composed of health workers each providing the same range of service, or by a mixture of health workers each providing different kinds of service? Are there to be part-time or full-time health workers or a combination of both? What should be the conditions for their selection and by whom will they be selected? Should they be remunerated and, if so, how and on what scale? Will they have prospects for advancing in their career and how will this be organized and controlled? Should volunteers be mobilized?

### Training

81. What kind of basic training should the members of the health team receive, and for how long? How will their continuing training be organized, who will organize it, and who will provide it? Who will be appointed team leader? How will individuals and families be incorporated in the health team so that they become full partners in their own health development? How will they be educated in health matters, and by whom?

### Equipment and facilities

82. When decisions have been taken on the methods to be employed for each of the components of primary health care, and on the types of health workers to apply these methods, it will be possible to decide on the equipment and supplies required, the essential drugs and vaccines, the system of maintaining equipment, and the frequency of replenishing supplies. A balance will have to be reached between local considerations and national standards, taking into account local initiative and development on the one hand, and the possibilities of organizing a national system of maintenance and supply on the other. Decisions also have to be taken on the physical facilities required, their location and size, and their design or adaptation from an existing structure.

### Responsibilities

83. To control the implementation of the community programme, it is necessary to decide on the methods and mechanisms for social, managerial, and technical guidance and supervision. Who will have overall responsibility within the primary health care facility? To whom will the person responsible report on progress and how often?

To whom will this person turn with managerial, technical, or social problems? To whom will the members of the community turn when they have similar problems?

84. These are only some illustrations of the types of question that have to be answered in planning and operating a community primary health care programme. Whatever the solution, there is a need for clear-cut procedures that are known to the community as a whole and to the health workers and that are followed by all concerned.

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## 8. Implementation

85. Three interrelated aspects of implementation are considered below:

- (i) starting up;
- (ii) the operation of programmes and services and institutions for delivering them; and
- (iii) monitoring.

### Starting up

86. The end result of detailed programming is a set of working documents. On the basis of these documents, programmes have to be brought to life, with people applying technology and others having it applied to them or controlling them. Some people have to be informed, others trained; some have to inform and train. Buildings have to be constructed and equipment purchased, installed, and run in. Vehicles have to be ordered, and supplies bought and transported to where they are needed. All this has to be organized and information made available to those who need to know it in order to permit the right action to be taken. All the above, and much more besides, is known as the starting-up of implementation, since the ideas on paper have to be concerted into action. The subject is vast, as is the literature on it; in many instances administrative procedures have to be followed that are highly specific to the country concerned. Only some of the main issues, therefore, will be touched upon in this paper. Some of these issues may have to be dealt with at only one organizational level, others at all levels. Some issues may be comparatively simple at community level, but may become much more complex the more central the level, e.g., the construction of facilities and the design and operation of logistic systems for supplies.

### Degree of detail

87. The starting-up of programme implementation entails thinking about a great many details concerning issues decided upon during detailed programming, e.g., those mentioned in paragraph 64 above.

In many cases it is only when issues such as these have to be faced in practice that their true nature emerges and realistic decisions can be taken with respect to them. For this reason, it is wise to start up programme implementation as soon as authority and funds to do so can be obtained. Those who are responsible for giving this authority and allocating the funds will be wise not to expect programmes to be formulated in such detail and with such precision that they can be implemented without further thought or deviation from the detailed plan. To expect this is to condemn the programming phase to become so lengthy that the resulting plan of action is likely to be outdated before it is put into effect.

88. During this starting-up phase of programme implementation, unforeseen circumstances and problems may arise that necessitate revision of the plan of action. For example, despite the fact that budgets have been approved for programme development and operation, it may prove impossible to allocate resources to the full extent required. In such cases the implementation schedule needs to be revised. Thus, the starting-up phase requires *a flexible managerial approach* as well as an action-oriented style of management to ensure the full implementation of the activities that have been planned. Managerial flexibility

89. The purpose of resource management is to ensure that the resources needed for all programme activities are secured in the right places at the right time so that programmes can be implemented expeditiously and successfully. This process starts during the early phase of programme implementation and continues as long as the programme lasts. The initial phase includes both the acquisition of the needed resources and the setting up of a management system to ensure their proper use, maintenance, or replacement. Resource management

90. Like finance, manpower is a key resource that can either make the successful implementation of programmes possible or limit their achievement. Manpower planning will have been considered during detailed programming. It is usually necessary, early in the starting-up phase, to make the managerial appointments and assignments required in order to prepare fully for implementation. Salary structures, Manpower

work incentives, and length of duty tours, where applicable, all have to be worked out in full. Assumptions with regard to attrition, retirement, illness, and/or career changes will have been specified during detailed formulation; as information accumulates during the starting-up and operation of a programme, changes in these assumptions or forecasts may be required.

91. During this period, post descriptions have to be finalized. Personnel have to be assigned to particular posts and locations. Training programmes have to be fully worked out and implemented. In doing so, account has to be taken of admission requirements, length of training for each qualification, curricula, faculty/student relations, training manuals and materials, and the housing and maintenance of students and teaching staff.

92. Information for personnel accounting frequently has to be systematized in order to monitor the production, loss, and utilization of important categories of staff. This information can also aid the process of staff assignment and rotation.

Facilities,  
construction,  
equipment

93. The physical design, construction, and equipment of health facilities take place at this stage. They require team work by a wide variety of experts in the health, architectural, engineering, economic and managerial disciplines. Strict control of the process by an individual or small group is essential; otherwise there is always the danger of the facilities eating up the whole health budget. In designing facilities, subsequent running costs always have to be borne in mind; for a typical hospital, for instance, capital expenditure may amount to no more than two to three years of running costs.

Procurement

94. Procurement includes making the necessary arrangements to utilize existing facilities and equipment; taking the necessary steps to purchase or rent and make usable those facilities and equipment that are needed but not currently available; contracting for the required commodities and services; ensuring their arrival when needed and their timely construction and installation; seeing that these

activities are carried out in such a way as to meet the needs of the programme at each successive phase, and monitoring the quality of the work and materials to ensure that they will operate as specified. Deficiencies in procurement processes not only limit programme performance but may also have a negative influence on future budgetary allocations.

95. Maintenance activities need to be implemented to ensure the constant performance of facilities and equipment. Personnel have to be appointed and trained to carry out maintenance, or contractual provisions made for this purpose. An initial stock of spare parts has to be obtained and an inventory management system set up to make sure that stocks of spares are ordered and obtained in time. An inventory of tools, fuels, lubricants, and cleaning and other supplies may also have to be established.

Maintenance

96. The concepts of appropriate technology certainly apply here. For effective performance and economical resource utilization it is essential that the equipment and facilities should be appropriate, having regard to the cost, availability, and skill of operational and maintenance personnel.

Appropriate technology

97. The type, quantities, and location of the supplies required will have been determined during detailed programme formulation. During the starting-up phase initial stocks have to be funded, procured, and put in place. To protect stocks against weather, spoilage and stealing, storage in a warehouse and, for some items, refrigeration facilities will be required. An inventory management procedure has to be set up and the responsibility for operating it clearly defined. The procedures should cover storage, a distribution system to ensure that supplies are in the right place at the right time, an efficient records system, and an alerting mechanism for restocking.

Logistics and supplies

98. The required personnel (including maintenance and repair staff), vehicles, fuel, lubricants, parts, and tools must all be provided during the starting-up phase of implementation in accordance with plans made for them during detailed programme formulation.

Transport

99. It goes without saying that, at the same time, budgetary approval has to be obtained for the expenditures necessitated by all the above activities.

## **Operation**

100. Whatever has been planned and set in motion has to be managed on a day-to-day basis. Day-to-day management of programmes and institutions for delivering them usually has to follow procedures that are highly specific to the country concerned. The following brief comments can, therefore, only be of a very general nature.

## **Programme maintenance**

101. In the programme operation phase the management function shifts to maintaining the performance of programme activities after they have been initiated. Operations management therefore involves day-by-day direction and control of personnel, services, and support activities to ensure that they serve the purposes for which they were established, and thus reflect the policies that gave rise to these purposes. What has been planned in the formulation phase and set up in the starting-up phase must now be carried out. Funds must reach workers and suppliers, supplies must reach those who are to use them, and personnel to carry out the various tasks have to be maintained and properly managed. Personnel management is usually the most essential, yet the most difficult, part of programme operation. Procurement of recurrent financial resources, replacement of manpower, restocking of supplies, and maintenance and repair of facilities, equipment, and vehicles should all now be made routine.

## **Management communications system**

102. Operations management also involves communication between organizational levels, e.g., to ensure the proper functioning of the referral system, as well as among sectors, with various units of government, and with communities. A critical management tool for the accomplishment of these operational tasks is a communications system giving early warning of the resource needs within the health system. Accounting procedures have to be applied to ensure that funds are expended for the purposes for which they were appropriated, to identify financial problems, and to serve

as the basis for further cost analysis for reprogramming and budget justification.

103. In the operational phase, resource management, in addition to ensuring the availability and proper distribution of resources, will need to keep the government aware of actual or potential imbalances, and take the necessary corrective action. For example, the training schedule for replacement of staff is dependent on assumptions about personnel attrition. These assumptions will need to be corrected on the basis of experience. Thus, it may prove necessary to re-examine training schedules and other personnel policies in order to avoid personnel shortages or costly surpluses.

Resource management

104. Throughout programme operation the central level of government in a health system is primarily concerned with supervision, coordination, and support rather than service delivery. An essential managerial activity at the centre is the coordination of resources to make sure that they are available at the right time and place. This means integration of funding, manpower, procurement, and logistics.

105. Throughout implementation, monitoring is required of the way resources are used and activities carried out. Monitoring is the day-to-day follow-up of activities during their implementation to ensure that they are proceeding as planned and are on schedule. It keeps track of ongoing activities, milestones achieved, personnel matters, supplies and equipment, and money spent in relation to budgets allocated. Reliable information on these matters must, therefore, be provided by those performing the activities. Monitoring makes it possible to identify deviations so that activities can be put back on the right track.

Monitoring

## **9. Evaluation**

106. Evaluation is a part of the managerial process for national health development. It should be based on information gained from monitoring the implementation of the policies, strategies, and plans of action, and on assessment of the efficiency of programme activities as well as their effectiveness and impact in terms of improvement of the health status of the population.

107. If governments are to know whether they are making progress towards attaining an acceptable level of health for all their people, they will be wise to introduce evaluation at an early stage. Monitoring of implementation and evaluation of efficiency, effectiveness, and impact take place at two levels—the policy and the managerial—but the two have to be linked. Policy-makers need to know whether the health status of the population is improving and whether revision of the policy, strategy, or plan of action is required. Managers and technicians need to know whether relevant programmes are being properly formulated, whether corresponding services and activities for implementing them are being adequately designed, and whether programmes are being efficiently implemented through suitably operated health and related social and economic services.

### **Purpose of evaluation**

108. Evaluation is a systematic way of learning from experience and using the lessons learnt to improve current activities and promote better planning by careful selection of alternatives for future action. This involves analytical assessments throughout the different phases of the managerial process. These analyses relate to the relevance of the programme, the way it is being formulated, its efficiency and effectiveness, and its acceptance by all parties involved. Evaluation can thus help to guide the allocation of human and financial resources in current and future programmes, but to do so it must be closely

linked with decision-making, whether at the operational or the policy level.

109. Evaluation has to be built into the entire managerial process for national health development and has to be applied on a continuing basis. It therefore has to be applied throughout the planning and implementation of programmes and the operation of services and institutions for delivering them so that their effectiveness and their socioeconomic impact can be assessed.

Framework for evaluation

110. The individuals and groups responsible for the development and application of the managerial process for national health development are also responsible for evaluating the programmes, services, and institutions to which the process has given rise, as well as the process as such. Those involved should ensure that other individuals and groups involved at the same level or at other levels, whether more centrally or more peripherally located, are kept informed of the results of evaluation and are required to take appropriate action. Final responsibility for the evaluation of the total health system rests with the central authorities, such as the cabinet or the minister of health.

Responsibility for evaluation

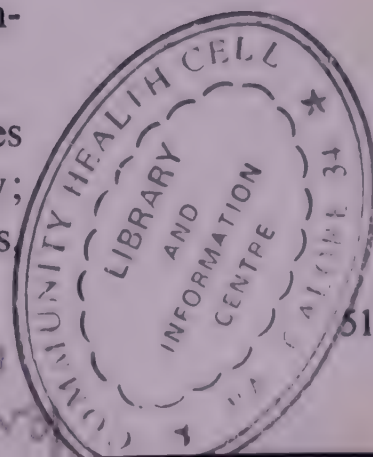
111. In any evaluation, the following components should be taken into account with varying degrees of emphasis;

Components of evaluation

- (i) relevance
- (ii) adequacy
- (iii) progress
- (iv) efficiency
- (v) effectiveness
- (vi) impact.

The following is a brief outline of the main features of these components:

- (i) *Relevance* relates to the rationale for adopting health policies in terms of their response to social and economic activity; and to having programmes, activities, services or institutions.



in terms of their response to essential human needs and social and health policies and priorities.

- (ii) *Adequacy* implies that *sufficient attention* has been paid to *certain previously determined courses of action*, such as those that have to be considered during broad programming.
- (iii) *Progress* is concerned with the comparison of actual with scheduled programme delivery, the identification of reasons for achievements or shortcomings, and indications for remedies for any shortcomings. The purpose of progress reviews is to facilitate the monitoring and operational control of on-going activities.
- (iv) *Efficiency* is an expression of the relationships between the results obtained from a health programme or activity and the efforts expended on it in terms of human, financial and other resources, health processes and technology, and time.
- (v) *Effectiveness* is an expression of the desired effect of a programme, service, institution, or support activity in reducing a health problem or improving an unsatisfactory health situation. Thus, effectiveness measures the *degree of attainment* of the predetermined objectives and targets of the programme, services, institutions, and support activities.
- (vi) *Impact* is an expression of the overall effect of a programme, services, or institution on *health development* and on related social and economic development.

## Constraints in evaluation

112. Evaluation, difficult in any field, presents particular problems in health work, owing to the very nature of the activities, which often do not lend themselves easily to the measurement, against predetermined, quantified objectives, of what has been attained. It is, therefore, often unavoidable to apply *qualitative* judgement, supported whenever possible by reliable, quantified information. Account has to be taken of the intricate interrelationships between the health sector and other social and economic sectors. Changes in a health situation are often brought about by elements outside the health sector, making evaluation difficult. This accentuates the need to

define reliable and sensitive *indicators* for identifying changes in health situations.

113. Indicators are variables that help to measure changes, directly or indirectly. The terms “output indicator”, “process indicator”, and “product indicator” are used. For example, if the objective of a programme is to train a certain number of auxiliary health personnel annually, a direct indicator for evaluation could be the number of such personnel actually trained each year. This is called an output indicator. As the terms imply, a process indicator measures the manner and extent of carrying out the process under consideration, and a product indicator measures the outcome of this process. For example, in order to assess the results of a programme aimed at improving the level of health of a child population, it may be necessary to gauge any improvement by using several indicators that indirectly measure a change in this level. Such indicators could be the nutritional status as illustrated by weight in relation to height, age-specific mortality rates, disease-specific morbidity rates, learning capacity, etc. These are more fully discussed in the companion publication entitled *Development of Indicators for Monitoring Progress Towards Health for All by the Year 2000*.<sup>1</sup>

Indicators

114. There will be some health activities for the evaluation of which no suitable indicators are available. In such cases, pertinent questions should be asked concerning the activity to be evaluated. The answers to these questions will be a guide to evaluation and will, in turn, help to define and refine indicators. For example, if a country has adopted the process of country health programming, questions like the following could be asked:

Pertinent questions

- Has the process led to the determination of priority programmes for countrywide implementation?
- Have the objectives of these programmes been clearly stated in either qualitative or measurable terms?

<sup>1</sup> *Development of indicators for monitoring progress towards health for all by the year 2000*, Geneva, World Health Organization, 1981 (“Health for All” Series, No. 4).

- Have appropriate plans of action with adequate budgets been established for attaining these objectives?
- Have the programmes been properly integrated into the general health system, starting with primary health care and continuing throughout the other levels of the health system as required?

Evaluation  
by the  
community

115. Quite apart from evaluation by those in the health service responsible for health development, evaluation by the community itself can be a powerful tool. For example, in one country the evaluation of a health programme was carried out by a district health committee during a community seminar. The seminar reviewed the results of the programme over one year and produced an improved plan of action which was approved by each community after review. Similar evaluations by the community might be usefully undertaken wherever primary health programmes are being carried out, and those responsible in the country for the application of the evaluation component of the managerial process for health development should bear this in mind. The following paragraphs outline one way in which such evaluation by communities could be carried out.

Review of  
relevance and  
adequacy

116. The following questions may be asked:

- Is the programme addressed to the high-priority problems of the community?
- Does it use methods that can be applied and afforded now by the community concerned?
- Is there another programme or service that might provide an alternative service to deal with the health problems in the community?
- Have the activities and their time schedules taken into account the particular conditions of the community?
- Does the community agree with the set of indicators that are said to be applicable in the community?
- Is there an adequate supply of required medicines at the community level?

117. The community should examine whether activities are being carried out in accordance with the implementation plan. The following examples are given by way of illustration:

Review of progress and efficiency

- whether a community worker has been selected, has been trained, and is performing to the community's satisfaction
- whether the target number of wells has been constructed
- whether the number of infant deaths has fallen
- whether the local clinic has the necessary essential drugs continuously in stock.

Questions should be asked to find out reasons for not achieving targets, and what corrective action the community proposes to take.

118. This could consist of an analysis of the attainment of health objectives in the community. The community may need the assistance of health officials in organizing the collection of data and in analysing them to assess improvement in health, using health status indicators and indicators of the provision of health care. For example, the infant mortality rate is a commonly used overall health status indicator which can be calculated from the data available on the number of deaths that have occurred among infants under the age of one year, as compared with the total number of infants born alive during the year.

Review of effectiveness and impact

## **10. Reprogramming**

119. Reprogramming may have to be initiated in response to the results of evaluation. It may be found, for example, that programmes are not acceptable to the people they are intended to serve, or are not proceeding according to plan because of unforeseen circumstances, or are not attaining their objectives. Such factors may make it necessary to modify programme activities or the calendar of action. They may even make it necessary to introduce changes into the national plan of action. This could have serious consequences if it means holding up the implementation of the plan as a whole, but it could have useful consequences if it leads to progressive improvements in the plan.

120. Any large-scale reprogramming will usually require the approval of those who originally authorized the programme, especially as reprogramming usually entails additional costs and leads to delays. If large-scale modifications are proposed to the national master plan of action, approval may be required from the highest political and executive decision-makers. This could create doubts in their minds about the usefulness of the plan and could make them very cautious about approving the new proposals. If it is added that minor adjustments and continual improvements are more easily accepted by the people directly involved than major changes of direction, it becomes clear that reprogramming should be a continuing process throughout the managerial cycle rather than an abrupt action at some late stage. This again accentuates the need to evaluate throughout the whole process and react immediately rather than wait until it is too late to introduce change without causing serious disturbances to the programme and delays in its execution, as well as incurring additional costs.

## **11. Information Support**

121. The decision-making process, involving all relevant components of the managerial process for national health development outlined above, requires relevant information. This information may come from existing reports and surveys but it may be necessary to carry out special surveys or to introduce or strengthen the collection and analysis of data as an intrinsic function of the health system. In the absence of relevant and objective data, reliance may be placed upon the judgement of knowledgeable and responsible people. It is better to obtain rough answers to the right questions than to use apparently precise data of doubtful relevance. For example, data on morbidity and mortality from urban hospitals may be totally misleading in respect of the rural population, who are frequently the largest population group and a major target of health development projects.

Sources of information

122. It has to be remembered that information gathering and analysis are expensive, especially if carried out as a separate activity. Before embarking on them, it is, therefore, important to identify clearly who the users are likely to be and what kind of information they are likely to need. For example, information might be required by health managers, health care personnel, research workers, educators and trainers of health personnel, and people involved in health matters in other sectors, not to speak of top-level policy-makers, executive decision-makers, and the general public.

Selectivity of information

123. Selectivity is, therefore, the keynote in deciding what information should be collected to support the managerial process for national health development. Each of the above-mentioned users may require different types of information, or the same kind of information presented in different ways. Most will require demographic data, but the degree of detail required will vary greatly.

Not all the categories of information carry the same weight or have the same importance in the various stages of the managerial process for national health development. Depending on the circumstances and subject to the availability of data, relevance must play a role in the selection of information. The following is intended to give an idea of some of the types of information commonly required.

**Policy  
information**

124. The relevant information on national socioeconomic development policies and national health policies should be made available during the analysis and/or reformulation of current policies, particularly with reference to formulating strategies for health for all and primary health care.

**Types of  
health care**

125. Information on the availability, accessibility, and utilization of various types of health care could cover: current patterns of utilization of various types of services; immunization activities, vector control and other methods of communicable disease control; housing; patterns of food and drug distribution; and income or employment, the educational system, and literacy levels.

**Health  
problems**

126. The health problems of population groups by age, sex (where significant, as in the child-bearing years), and location are necessary information inputs into programming. Problems may be measured in terms of mortality, disability, and prevalence of disease or condition. Where relevant for the design or selection of interventions, determination of mortality or disability due to specific diseases or disease groups may help to focus planning and programming on the most relevant aspects of the health situation.

127. For example, in many of the developing countries, a large proportion (often as high as 50%) of deaths occurs in children under 5 years of age. Where this is so, rough identification of the main fatal conditions may help programme design. A table such as the following may be useful:

Annual deaths of children aged 0-4 years

Cause	Percentage of deaths
Diarrhoeas and malnutrition	30
Upper respiratory disease	25
Measles	20
Tetanus	10
Malaria	5
Others	10
Total	100

Data on the nutritional status of young children and on fertility behaviour patterns may also be helpful in identifying health problems.

128. A summary of the various existing categories of health establishment should be assembled by major groupings, by type of activities performed, and by main administrative subdivisions of the country. Examples are data on health facilities/hospitals, health centres, dispensaries, bed/population ratio, and health training institutions (medical schools, nursing or midwifery schools, and other faculties and training institutions for preventive, curative, or health research personnel).

Resources and facilities

129. The estimated number of physicians, nurses, midwives, and other health personnel, including non-professional primary health care workers, should be given with an indication of their urban/rural distribution, as well as their distribution among the facilities in which they serve, their distribution by specialty, and rough estimates of annual numbers of graduates from existing educational and training institutions. Information on traditional practitioners and birth attendants should be included where relevant.

Health manpower

130. It is useful to relate current health activities to their costs, in order to develop cost factors for each type of activity which could

Costs

be used to make rough approximations of the budgetary implications of programming decisions or proposals.

Administration

131. Another important type of information is the administrative structure and the capacity of the country, including the central government as well as peripheral government levels and community organizations. Information on this subject is likely to be qualitative rather than quantitative and should not be restricted to the capacities of formally designated health workers, since, for example, educators and women's organizations may be significant resources.

Other  
information

132. There is no doubt that additional specialized information will be required during various stages in the development of the managerial process for national health development. The need usually comes to light in the course of applying the managerial process. Those responsible for planning and implementing various phases of the process should familiarize themselves with existing statistical publications and other sources of information or identify responsible persons in the country capable of providing information.

133. The following principles are pertinent to information support for the managerial process for national health development. The information system should support managerial and technical functions, not replace them. Health information collection, analysis, and dissemination should be integral parts of the activities of the health system, and the structure of a national health information system should follow the structure of the health system itself. Only information that is required by specific users for specific purposes should be sought. The information need not be more precise than the process it supports; approximate information in good time is better than precise information too late. Measures have to be taken to ensure that the producers of information are provided with feedback information.

## **12. Concluding Remarks**

134. In paragraph 7 it is stated that there is a need to demystify and simplify the managerial process for national health development. In spite of attempts to do so in this document, the process remains complex. It is hoped that the present document will at least have made it easier to understand by presenting it in an orderly fashion, listing and outlining its major components, the relationships between them, and their products, bearing in mind that the principles presented in this paper are intended for application by each country in a flexible manner reflecting the country's own health, political, social, and economic circumstances.



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